



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/752,526	01/03/2001	Eisuke Sasaoka	50395-073	9992

7590 11/15/2002
MCDERMOTT, WILL & EMERY
600 13th Street, N.W.
Washington, DC 20005-3096

EXAMINER

TRA, TUYEN Q

ART UNIT	PAPER NUMBER
----------	--------------

2873

DATE MAILED: 11/15/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

09/752,526

Applicant(s)

SASAKA ET AL.

Examiner

Tuyen Q Tra

Art Unit

2873

-- The MAILING DATE of this communication appears on the c v r sh et with th correspondenc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 September 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8 is/are allowed.
- 6) ☒ Claim(s) 1, 3, 5, 6 and 9 is/are rejected.
- 7) ☒ Claim(s) 2, 4 and 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The proposed drawings on 9/03/02 have been received. The drawings in this application are objected to by the Draftsperson as for the reasons noted on the attached Notice of Draftsperson's Patent Drawing Review, form PTO-948.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 5 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter "effective area" which applicant regards as the invention.

Applicant's disclosure fails to define the term "effective area". Therefore, it is technically unclear what "effective area" is.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Art Unit: 2873

5. Claims 1 and 3 are rejected under 35 U.S.C. 102(e) as being anticipated by Kinoshita (U.S. Pat. 6,342,965 B1).

a) With respect to claim 1, Kinoshita discloses an optical fiber amplifier in Fig. 6 comprising of an optical fiber (61) for Raman amplification and a pump light introducing means (63), the optical fiber transmitting signal light from input and Raman-amplifying the signal light by pump light introduced thereinto, the pump light introducing means (63) introducing, as the pump light, light having a wavelength that is within the amplification wavelength band of an Er-doped optical fiber amplifier into the optical fiber for Raman amplification (col. 9, lines 21-34; col. 21, lines 23-46).

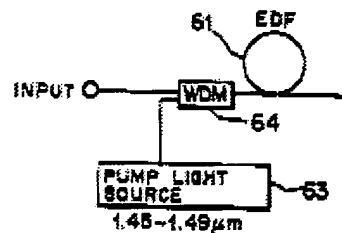


Figure 6

b) With respect to claim 3, Kinoshita further states in col. 8, lines 22-34 that a pump source for supplying pump light for pumping the rare earth doped fiber optical amplification element which, in other word, means the pump light introducing means (63) is provided with an Er-doped optical fiber amplifier which amplifies the pump light and introduces the amplified pump light into the optical fiber for Raman amplification (Fig. 6).

6. Claim 6 is rejected under 35 U.S.C. 102(e) as being anticipated by Akasaka et al. (U.S. Pat. 6,292,288 B1).

Art Unit: 2873

Akasaka et al. discloses a Raman amplifier in Figure 1 comprising of a Raman amplifier in a repeater (6) section thereof, the Raman amplifier being equipped with

- an optical fiber (2) for Raman-amplification which transmits signal light and Raman-amplifies the signal light by means of pump light introduced thereinto, and

- a means (1) of introducing the pump light having wavelength within the amplification wavelength band of an Er-doped optical fiber amplifier into the optical fiber (2) for Raman amplification, and the optical fiber for Raman amplification constituting a part or the whole of the optical transmission line of the repeater (6) section (col. 4, lines 31-40; col. 6, lines 34-42).

Allowable Subject Matter

7. Claims 8 is allowed.

The reason for the indication of allowable subject matter is that (claim 8) An optical fiber having an absolute value of chromatic dispersion in the range of about 0.1 to 10ps/nm/km at 1.65 IL m wavelength disclosed in the claims is not found in the prior art.

8. Claims 2, 4 and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The reason for the indication of allowable subject matter is that (claim 2) the wavelength of the pump light is 1535nm or more but less than 1605nm; (claim 4) an optical fiber having an absolute value of chromatic dispersion in the range of about 0.1 to 10ps/nm/km at 1.65 IL m wavelength; (claim 7) wherein the optical transmission line is further provided with a dispersion

compensating fiber, the chromatic dispersion of the optical fiber for Raman amplification having a sign opposite to that of the chromatic dispersion of the dispersion compensating optical fiber, the dispersion slope of the optical fiber for Raman amplification having a sign opposite to that of the dispersion slope of the dispersion compensating optical fiber disclosed in the claims is not found in the prior art.

RESPONSE TO APPLICANT'S ARGUMENT

9. Applicant's arguments filed on 9/03/02 have been fully considered but they are not persuasive. Applicant argued the followings

A. Kinoshita does not disclose "the pump light has a wavelength within the amplification wavelength band of ER-doped optical amplifier (EDFA)" (page 4, lines 19-20; page 6, lines 12-18).

B. Watanabe does not teach the same basic structure as Kinoshita (page 7).

C. Applicant submission article "Nonlinear Fiber Optic" page 40 which defines the "effective core area".

With regard to argument A, the references fails to show certain features of Applicant's invention that is "the pump light has a wavelength within the amplification wavelength band of ER-doped optical amplifier (EDFA)" of claims 1 and 6. The claims does not reflect any specific range of the pump light that Applicant refers on page 8, lines 4-12, which states wavelength of pump light is with thin (1530nm-1565nm) or (1570nm-1605nm). It is noted that the features upon which applicant relies (i.e., wavelength of ump light is with thin (1530nm-1565nm) or (1570nm-1605nm)) are not recited in the rejected claims. Although the claims are interpreted in

Art Unit: 2873

light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

With regard to argument B, Applicant's arguments have been fully considered, and claim 2 is now allowed.

With regard to argument C, the Examiner requests for Applicant to provide evidence to prove that the term "effective area" is the same as the term "effective core area".

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 2873

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuyen Tra whose telephone number is (703) 306-5712. The examiner can normally be reached on Monday to Friday from 8:30am to 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps, can be reached on (703) 308-4883. The fax number for this Group is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

Examiner: Tuyen Tra

Date: November 8, 2002


Hung Xuan Dang
Primary Examiner